


Total RNA extraction from fish fin ray

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 An abbreviated version of this protocol was published in Scientific Reports in May 2021

Osteocytes as main responders to low-intensity pulsed ultrasound treatment during fracture healing

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Detailed protocol

Fishes (zebrafish or medaka) were sacrificed with an overdose of Tricaine solution (4 g/L in water).

The fishes' caudal fin rays were cut by a scalpel.

Wash fin rays in tap water and stored in ice.

Carefully wipe off the water on fin rays with a clean paper towel.

Transfer fin rays into 1.5 ml tube and add 500ul Qiazol lysis reagent (Qiagen, Hilden, Germany).

Homogenized fin rays using a BioMasher homogenizer (BioMasher II, Nippi, Tokyo, Japan) for 30 sec.

BioMasher homogenizer (BioMasher II, Nippi, Tokyo, Japan)



BioMasher homogenizer

Add 400 ml Qiazol lysis reagent to make the total volume about 900ml.

RNA extraction was performed with RNeasy Mini RNA isolation kit (Qiagen, Hilden, Germany) according to the manufacturer's protocol.

How to cite: (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Sato, M. (2022). Total RNA extraction from fish fin ray. Bio-protocol Preprint. bio-protocol.org/prep1759.
2. Shimizu, T., Fujita, N., Tsuji-Tamura, K., Kitagawa, Y., Fujisawa, T., Tamura, M. and Sato, M. (2021). Osteocytes as main responders to low-intensity pulsed ultrasound treatment during fracture healing. Scientific Reports 0(0). DOI: [10.1038/s41598-021-89672-9](https://doi.org/10.1038/s41598-021-89672-9)

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